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ABSTRACT

The principal uses of statistics in library planning may be illustrated by examples from the state of Illinois. State law specifies that the Illinois State Library compile and publish statistics on libraries. State agencies also play an important and expanding role in this effort. The state library now compiles statistics on all types of libraries, and attention is being given to analysis of this data. Local librarians can aid the statewide data collection program by maintaining accurate records. These records, when interpreted to the community, also have a public relations value for the local library. The uses of library statistics can be divided into several general categories: statewide and institutional comparison and evaluation, legislative justification, administration of library standards, manpower planning, and budgeting. Those engaged in library planning need not be reminded of the importance of accuracy and comparability in statistical data. The cost of data collection can be reduced through the use of scientific sampling. Inservice training should be implemented to change the negative attitudes of librarians toward measurement, since this is a major barrier to improved statistical reporting. (Author/SL)

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STATISTICS AS TOOLS IN LIBRARY PLANNING:
ON THE STATE AND INSITUTIONAL LEVEL

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STATISTICS AS TOOLS IN LIBRARY PLANNING: ON THE STATE AND INSTITUTIONAL LEVEL

Introduction

It is a pleasure to be here and to share with you some of my experiences with, and attitudes toward, two of the most important topics in library administration today--planning and statistics. It would be easy indeed to underestimate the importance and complexity of the topic at hand. According to the Library Statistics Operations Handbook, the planning aspect of library administration "is at once the most important use of library statistics and the one most difficult to describe because the possible variations of need and use are infinite." [1] For this reason the following paper is limited to the principal uses of statistics in library planning at the state and institutional levels, and the examples to illustrate these uses are drawn primarily from the state of Illinois.

Library Planning in Illinois

At the outset some consideration of the context of library planning in Illinois seems in order. The Illinois State Library, like many state library agencies, has a dual responsibility by law: (1) to promote, support, and implement library services on a statewide basis, and (2) to serve as a special library for state government. Our legislation also specifies a number of additional responsibilities, such as administering grants of federal funds, administering the Illinois Library Systems Act, and of particular interest to this group, compiling and publishing statistical information about libraries.[2]

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[1] Library Statistics Operations Handbook, (First Draft, June 1974) pp. II-2&3.

[2] Illinois Revised Statutes, Chapter 128, para. 103; 107

The Library Systems Act of 1965 [3] authorized the creation and financing of a network of library systems, and the financing of Reference and Research Centers to serve as statewide information and materials resource centers. As a result of this legislation, the people of Illinois are now served by 17 cooperative library systems and one consolidated library system (Chicago Public Library); and they have access to four Reference and Research Centers (Chicago Public Library, Illinois State Library, Southern Illinois University Library at Carbondale, and the University of Illinois Library), and one special resource center for science, technology and health science (John Crerar Library of Chicago). At this writing, the Illinois library network [4] includes 537 public libraries, 103 academic libraries, and 86 special libraries.

Again, like many state library agencies, the Illinois State Library participated in the Institute for Statewide Library Planning and Evaluation, 1971-72, which was funded by the United States Office of Education and carried out by Ohio State University Evaluation Center. Since that time we have applied the planning model presented at the Ohio State Institute, the Context-Input-Process-Product (CIPP) Model, [5] to our long-range program. This model depicts planning and evaluation as part of a continuous process and provides channels of feedback at all stages in this process. We are reasonably satisfied with the CIPP model, and have contracted with the Library Research Center at the University of Illinois

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[3] Illinois Revised Statutes, Chapter 81, para. 111; 122.

[4] Any public, academic, or special library in Illinois may access the network by becoming a member of an affiliate member of a library system. Beginning early next year, school library media centers will be eligible for membership as well.

[5] Donald D. Thomson, ed. Planning and Evaluation for Statewide Library Development: New Directions (Columbus: The Ohio State University Evaluation Center, 1972), pp. xiii-xv; 34-42.

to teach this planning and evaluation model in our library systems.[6] At this writing all of our library systems are developing long-range plans to improve and extend system services to all citizens. These system, or regional, plans are compatible with the goals of the State Library's long-range plan,[7] although specific objectives may vary from system to system.

State Agency Roles and Responsibilities

Traditionally state agencies have played an important role in the collection of statistical information about libraries, and because of this, state agency roles and responsibilities in this area seem certain to expand. Not only is state participation an integral part of the Library General Information Survey (LIBGIS), but the trend toward greater accountability in government is expanding state roles and increasing state responsibilities. The Illinois State Library, for example, has participated actively in LIBGIS since the inception of the program,[8] and we are now in the process of revising our annual report forms to assure continued compatibility with the national library statistics program. We are also extending the national samples for

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[6] Mary Ellen Michael and Arthur P. Young, Planning and Evaluating Library System Services in Illinois (Springfield: the Illinois State Library and the Library Research Center, University of Illinois, 1974).

[7] "Meeting the Challenge: Illinois State Library's Long-Range Program for Library Development in Illinois 1974-1979". The latest annual revision of this plan will appear in the November 1974 issue of Illinois Libraries.

[8] Alphonse F. Trezza and Barbara O. Slanker, "Library General Information Survey (LIBGIS) State Participation and Development" (Final Report to the U. S. Office of Education as part of contract No. OEC-0-72-1465, May 14, 1974); and Barbara O. Slanker, "Developing LIBGIS with State Participation," The Bowker Annual of Library and Book Trade Information 19th ed. 1974 (New York, R. R. Bowker, 1974), pp. 225-228.

the LIBGIS I Public Library Survey and the School/Media Center Survey to include statewide samples so that we will be able to compare Illinois with other states participating in LIBGIS I and so that our libraries will be able to compare themselves to other Illinois libraries. All state agencies should be urged to participate fully in the LIBGIS program so that a complete array of accurate and comparable library statistics will be available for national planning and for the development of legislation.

Ten years ago the Illinois State Library collected and published annual reports from only public libraries. Today, as a result of the Library Systems Act of 1965 and the expansion of the Illinois library network, we need statistical information from all of the traditional types of libraries (namely, academic, public, school and special) in Illinois. Our responsibilities increased to such an extent that we created a new staff position several years ago--that of Specialist in Research and Statistics--to plan and supervise the collection, reduction, and analysis of statistical information about Illinois libraries.

Although most state agencies publish the library annual reports they collect, few analyze the statistics they publish in any meaningful way. In Illinois, for example, we are just now planning an analysis of our public library reports similar to that prepared by the Wisconsin Division for Library Service last year. [9] The Wisconsin publication is intended to complement their long-range plan by providing an indepth analysis of the current library situation against which progress can be measured. It is important that state agencies analyze library statistics – rough statistics can be deceiving. For example,

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[9] Wisconsin Department of Public Instruction. Wisconsin Library Service Record, 1973. (Madison: Division for Library Services, 1974).

a library in a rapidly growing suburban area may show annual increases in bookstock, circulation, and income, but when these statistics are analyzed on a per capita basis, the library may show a decline. I would strongly urge that states relate library statistics to relevant social, economic, and demographic statistics. In addition to reporting totals, percentages, ratios and rankings, state agencies should also consider including narrative summaries to interpret the tabular information presented in their statistical publications.

Institutional Roles and Responsibilities

The role of the library administrator at the institutional level vis-a-vis the statewide library statistics program can be summed up in one word cooperation. All too often a librarian will voice support for library statistics, but when asked to collect data or prepare an annual report, the same librarian will be "too busy". However, in addition to maintaining accurate records for the statistics required by state and federal agencies, it is incumbent upon the local librarian to interpret these statistics to the corporate authority and the community. The public relations value of library statistics is often overlooked completely. Without cooperation at the local level it is impossible to develop an effective statewide library statistics program.

The Principal Uses of Statistics in Library Planning

Perhaps it would be useful to enumerate some of the principal uses of statistics in library planning. As has been noted earlier, the pervasiveness of the topic under consideration makes such a listing somewhat difficult. Library statistics have been used and continue to be used in the planning, implementation, and evaluation of virtually every major program undertaken or funded by the Illinois State Library. Yet it is possible to isolate some

general categories of use, namely, statewide comparison and evaluation, institutional comparison and evaluation, legislative justification, administration of library standards, manpower planning, and budgeting and appropriation.

Just as libraries use statistics to compare themselves with other libraries at the institutional level, statewide library statistics are frequently compared. Comparisons of this type are frequently used to suggest or to justify legislative change. A good example of this was when Robert H. Rohlf prepared his Plan for Public Library Development in Illinois[10] he examined not only Illinois statistics, but the library statistics of several other states. This plan led directly to the passage of the Library Systems' Act of 1965 which has, in many ways, set the course of library development in Illinois in recent years.

During this last year my staff and I assisted a subcommittee of the Illinois House Revenue Committee in studying the financial structure of public libraries in Illinois. A cursory glance at the subcommittee's final report should convince any reader how heavily this group depended upon library statistics in the course of their study.[11] We supplied the subcommittee with everything from nonresident fees to the outcome of library referenda and to the projected costs of modifying the present equalization aid formula. Much of this information was available from our public library annual reports. It is expected that the recommendations of this subcommittee will be translated into legislative action during the next two or three sessions of the Illinois Legis-

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[10] Robert H. Rohlf, A Plan for Library Development in Illinois (Aurora: Library Development Committee, Illinois Library Association, 1963).

[11] Financial Structure of Public Libraries: Report of the Library Funding Subcommittee of the House Revenue Committee (Speingfield: Illinois State Library, 1974).

lature.

Comparing library statistics at the institutional level is a popular way of justifying budget requests for all types of libraries. Many of our public libraries, for example, tell us that they await publication of our public library statistics [12] before presenting their budget request. Academic libraries, particularly those in state supported institutions, also compare statistics for budgetary justification.

Although Illinois does not have certification of public librarians or of public libraries; as some states do, the Illinois Library Association (ILA) has adopted standards for public library service in Illinois.[13] It is not uncommon for our public libraries to compare themselves to the standards when planning services or justifying the budget. One objective found frequently in our system long-range plans is to assist local libraries in achieving standards. For example, the Cumberland Trail Library System, in Flora, Illinois, has prepared a document showing how member libraries measure up to ILA standards.[14] Needless to say, the statistics used in this comparison are from our public library annual reports.

The Illinois State Library is possibly the only state agency with a recruitment and scholarship program. In the process of evaluating this program,

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[12] Published annually in the October issue of Illinois Libraries.

[13] Illinois Library Association. Measures of Quality: Illinois Library Association Standards for Public Library Service in Illinois (Springfield: Illinois State Library, 1971).

[14] "Measures of Quality: A Comparison--Member Libraries of Cumberland Trail Library System, FY 1975," (Flora, Ill.; Cumberland Trail Library System, mimeo, 1974).

we have found the "number of budgeted vacancies" on our public library annual report useful.

The Quest for Accurate, Comparable, and Meaningful Statistics

Those engaged in library planning, I am sure, do not need to be reminded of the need for accuracy and comparability in library statistics. The problem of comparability (that is, getting all libraries to count the same thing in the same way) was alleviated to some extent by the publication of the first ALA Library Statistics Handbook, [15] and continued progress toward solving this problem is anticipated with full implementation of the LIBGIS Program and publication of the revised ALA Library Statistics Operations Handbook. One example of the interrelated problem of accuracy and compatability that has plagued us in Illinois is the reporting of registered borrowers by public libraries. Some libraries issue individual borrowers cards, some issue family cards, and some issue both. Furthermore, some libraries re-register borrowers regularly while others have never validated their list of registered borrowers. Last year we stopped publishing statistics on registered borrowers because of the inability to obtain comparable and accurate information.

An obvious trend in public budgeting at all levels in the United States is the adoption of performance budgeting, program budgeting, and planning-programming-budgeting-systems (PPBS).[16] This trend seems to be causing a healthy

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[15] American Library Association, Statistics Coordinating Project, Library Statistics: A Handbook of Concepts, Definitions, and Terminology (Chicago: American Library Association, 1966).

[16] For definitions and library examples, see William Summers, "A Change in Budgetary Thinking," in Gerald R. Shields and J. Gordon Burke, Budgeting for Accountability in Libraries : A Selection of Readings (Metuchen, N. J. : Scarecrow Press, 1974). pp. 11-33.

reevaluation of traditional library statistics and library standards.[17] Budgetary systems emphasizing output (performance or effectiveness) require output measures.[18] The ALA Public Library Association recently published a package of suggested performance measures for public libraries in an attempt to fulfill this need.[19] Another example, although from a different point of view, is the ALA Association of College and Research Libraries management review and analysis program.[20] The intent here is not to replace the library statistics we are now collecting, but rather to complement and supplement them. The North Suburban Library System has collected data on the PLA performance measures; and they report that the information obtained is useful. Early next year the Illinois State Library and the Library Research Center at the University of Illinois plan to test these performance measures in a number of additional libraries throughout the state of Illinois. Yet, in spite of these efforts, much remains to be done. The measurement of services, particularly of reference services, remains a problem.

The point I am trying to make is that Library statistics are not an end

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[17] Ralph Blasingame and Mary Jo Lynch, "Design for Diversity: Alternatives to Standards for Public Libraries," PLA Newsletter, Vol. 13 (June 1974), pp.4-22

[18] Walter Alan Steiss, Public Budgeting and Management (Lexington, Mass.: Lexington Books, 1972), p. 155.

[19] Ernest R. DeProspo, Ellen Altman, and Kenneth E. Beasley, Performance Measures for Public Libraries (Chicago: Public Library Association, American Library Association, 1973).

[20] Duane E. Webster, "The Management Review and Analysis Program: An Assisted Self-Study to Secure Constructive Change in the Management of Research Libraries," College and Research Libraries, Vol. 35 (March 1974), pp. 114-125.

in themselves--they must be used, and in order to be useful, they must be meaningful.

Reducing the Cost of Collecting Statistics

In an era of increasing competition for public monies, library administrators cannot ignore the cost of collecting library statistics. It would be difficult, if not impossible, for most libraries to maintain continuous records for all of the statistical information needed for good planning. Fortunately this is not necessary since scientific sampling can be used to produce estimates which are accurate enough for most library planning and reporting functions. It is encouraging to note that the LIBGIS program and the PLA performance measures depend heavily upon sampling. In addition, a number of libraries seem to be experimenting with scientific sampling at the institutional level.[21] Certainly librarians at all levels should be encouraged to consider sampling as one possible way to reduce the cost of collecting library statistics, to increase staff acceptance of data collection responsibilities, and, in some cases, to achieve greater accuracy by eliminating manual errors.

Conclusion

One of the barriers to improving statistical reporting is the negative attitude of some librarians toward measurement. This attitude toward measurement and statistics may be, in part, a reflection of inadequate background. Yet I doubt if the problem can be solved by our graduate library schools. What seems to be needed is continuing education for practicing librarians.

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[21] See Terry R. Lied and Don L. Tolliver, "A General Statistical Model for Increasing Efficiency and Confidence in Manual Data Collection Systems through Sampling," Journal of the American Society for Information Science, Vol. 25 (September-October 1974), pp.327-331.

Every year the Illinois State Library receives requests to conduct library statistics workshops. These workshops usually cover the need for library statistics, basic record-keeping, how to analyze statistics for use in library management, and a step-by-step explanation of how to complete our annual report form. These workshops have resulted in a noticeable improvement in our annual reports.

I must be candid by telling you that, if our experience at the Illinois State Library is typical, it takes years to develop a statistical reporting system for statewide library planning. Do not underestimate the importance and complexity of what you are undertaking. Building a statewide statistical reporting system is hard work, but it is absolutely essential.

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